

Amendment to the Claims:

The claims under examination in this application, including their current status and changes made in this paper, are respectfully presented.

1 (original). A radio, comprising:

a duplexer;

a transmitter section coupled to the duplexer, the transmitter section transmitting at a center frequency; and

a receiver section coupled to the transmitter section, the receiver section including a first down conversion section comprising first and second mixers, said first and second mixers receiving a first local oscillator (LO) signal having a frequency equal to the center frequency of the transmitter section or a sub-harmonic thereof.

2 (original). A radio as defined in claim 1, wherein the radio comprises a frequency division duplexed (FDD) radio.

3 (original). A radio as defined in claim 1, wherein each of the first and second mixers has an output and further comprising:

a first high pass filter coupled to the output of the first mixer; and

a second high pass filter coupled to the output of the second mixer.

4 (original). A radio as defined in claim 3, wherein the first and second high pass filters comprise integrated DC blocking capacitors.

5 (original). A radio as defined in claim 3, wherein the first and second high pass filters comprise cascaded single pole high pass filters.

6 (previously presented). A radio as defined in claim 3, wherein each of the first and second high pass filters has an output;

and further comprising:

a first set of two mixers coupled to the output of the first high pass filters; and

a second set of two mixers coupled to the output of the second high pass filter.

7 (previously presented). A radio as defined in claim 6, wherein a first mixer of the first set of two mixers provides an in-phase (I) component at an output and a second mixer of the first set of two mixers provides a quadrature (Q) component at an output,

wherein a first mixer of the second set of two mixers provides an in-phase (I) component at an output and a second mixer of the second set of two mixers provides a quadrature (Q) component at an output;

and further comprising:

a first adder having a first input for receiving the output of the second mixer of the first set of two mixers, and a second input for receiving the output of the first mixer of the second set of two mixers, said first adder having an output for providing an in-phase component base band signal (B.B.I.); and

a second adder having a first input for receiving the output of the first mixer of the first set of two mixers, and a second input for receiving the output of the second mixer of the second set of two mixers, said second adder having an output for providing a quadrature component base band signal (B.B.Q.).

8 (previously presented). A method for minimizing the interference caused by the transmit signal produced by the transmit section on the receiver section of a frequency division duplexed (FDD) radio, the receiver section having a first down conversion section, the method comprising the steps of:

providing a local oscillator (LO) signal to the first down conversion section of the receiver, said LO signal having a frequency equal to the center frequency of the transmit signal or a sub-harmonic thereof; and

filtering the output of the first down conversion section of the receiver.

9 (original) A method as defined in claim 8, wherein the filtering step comprises high pass filtering the output of the first down conversion section.

10 (original). A method as defined in claim 9, wherein the filtering step comprises using one or more DC blocking capacitors to filter the output of the first down conversion section.

11 (previously presented). A method as defined in claim 9, wherein the filtering step comprises using one or more cascaded single pole high pass filters to filter the output of the first down conversion section.

12 (original). A method as defined in claim 9, further comprising the step of:
down converting the high pass filtered output using a second down conversion section.

13 (original). A radio as defined in claim 2, wherein the receiver section is for receiving a signal having a center frequency different from the center frequency at which the transmitter section transmits;

and further comprising:

a first high pass filter coupled to the output of the first mixer, for passing frequencies including an intermediate frequency corresponding to a difference between the center frequency of the receiver section and the center frequency at which the transmitter section transmits; and

a second high pass filter coupled to the output of the second mixer, for passing frequencies including an intermediate frequency corresponding to a difference between the center frequency of the receiver section and the center frequency at which the transmitter section transmits.

14 (original). A method of operating a receiver in an FDD radio to remove, from a desired receive signal, interference caused by a transmitter transmitting at a transmit center frequency, the desired receive signal having a receive center frequency that is different from the transmit center frequency, comprising the steps of:

mixing the receive signal with a local oscillator frequency to provide a down-converted receive signal, the local oscillator frequency equal to the transmit center frequency or a sub-harmonic thereof.

high-pass filtering the down-converted receive signal; and
converting the high-pass filtered down-converted receive signal to a base-band
signal.